

CLAIMS

We claim:

- Sub A1
1. A method for displaying a focus state of a user interface element in a graphical user interface of a computing system, the method comprising:
 - testing whether a control state of a user interface element is disabled or active;
 - if the control state is active, detecting if the user interface element is in a focus state;
 - if the user interface element is in an active control state and in a focus state, building a merged state indicating the user interface element is active and in a focus state; and
 - rendering based on the merged state a display of the user interface element in an active state with a focus state indicator.
 2. The method of claim 1 wherein the control state is normal and the act of building builds a merged normal-focus state as a single state.
 3. The method of claim 2 wherein the act of rendering comprises:
 - receiving theme data for the normal state and theme data for the focus state;
 - drawing the user interface element on a display based on the theme data for the normal state and drawing the focus indicator on the user interface element based on the theme data for the focus state.
 4. The method of claim 1 wherein the control state is hot and the act of building builds a merged hot-focus state as a single state.
 5. The method of claim 4 wherein the act of rendering comprises:
 - receiving theme data for the hot state and theme data for the focus state;
 - drawing the user interface element on a display based on the theme data for the hot state and drawing the focus indicator on the user interface element based on the theme data for the focus state.
 6. The method of claim 1 wherein the control state may be disabled, normal, hot or selected depending upon the availability of the user interface element and the input from the user and the active states having a possible focus state are normal and hot.

7. A computer program product readable by a computing system and encoding a computer program of instructions for executing a computer process for displaying a themed focus state of a control element in a graphical user interface of a computing system, said computer process comprising:

5 receiving a control state for the control element;
detecting if the control element is in a focus state;
if the control element is in a focus state, building a combined state indicating the control state and focus state of the control element; and
rendering the control element based on the combined state so that the control element is
10 displayed with a themed focus state.

8. The computer program product of claim 7 wherein the computer process further comprises:
detecting whether the control state of control element is disabled or active; and
if the control element is disabled, rendering the control element based on a theme for the control state.

9. The computer program product of claim 7 wherein the control state has a control state theme and the focus state has a focus state theme and the act of rendering comprises:

retrieving the control state theme and the focus state theme;
drawing the control element based on the control state theme and the focus state theme so
that the control element in a focus state is displayed with a focus state theme.
5

10. The computer program product of claim 7 wherein only control states, where the control is available and has not been selected, may also have a focus state.

11. A method for changing visual styles of a focus state indicator in a control element in a graphical operating system running on a computing system, said method comprising:

receiving the operative state of the control element;

detecting whether or not the control element is in a focus state;

5 drawing the control element using an operative state theme when said act of detecting detects the control element is not in a focus state;

creating a combined state for the control element, when said act of detecting detects the control element is in a focus state, the combined state being a single merged state representing the operative state and the focus state; and

10 drawing the control element in the combined state using the operative state theme and a focus state theme, whereby the visual style of a focus state indicator in the control element is changed by the focus state theme.

12. The method of claim 11 wherein the act of creating the combined state comprises:

receiving a focus state for the control element;

testing whether the operative state of the control element is normal; and

if the operative state is normal, setting the combined state to a hot-focus state.

13. The method of claim 12 wherein the act of drawing the control element in a combined state comprises:

retrieving the normal state theme properties;

retrieving the focus state theme properties;

rendering the control element with both the normal state theme properties and the focus state theme properties.

14. The method of claim 11 wherein the act of creating the combined state comprises:

receiving a focus state for the control element;

testing whether the operative state of the control element is hot; and

if the operative state is hot, setting the combined state to a hot-focus state.

15. The method of claim 14 wherein the act of drawing the control element in a combined state comprises:

retrieving the hot state theme properties;

retrieving the focus state theme properties;

5 rendering the control element with both the hot state theme properties and the focus state theme properties.

16. The method of claim 11 the act of creating the combined state comprises:
- receiving a focus state for the control element;
 - testing whether the operative state of the control element is disabled; and
 - if the operative state is disabled, performing an error handling process.

17. A system for themeing a focus state indicator separate from an operative theme for a control element in a graphical operating system said system comprising:

an operative state module determining the operative state of the control element;

a focus state detector testing whether the control element is in a focus state and indicates

5 focus condition or a non-focus condition;

a build combined state module in response to the focus condition merging the operative state and the focus state into a combined state indicating the control element may be rendered based on both a operative state theme and a focus state theme.

18. The system of claim 17 further comprising:

a draw combined state module drawing the control element with operative state theme properties and a focus state indication with focus state theme properties.

19. The system of claim 17 further comprising:

a draw operative state module in response to the non-focus condition drawing the control element with operative state theme properties.

receiving a operative state theme for rendering a display of an operative state for a control element;

receiving a focus state theme for rendering the focus state of the control element; and
displaying the control element in a combined operative-focus state, the rendering of the
control element in the combined state being based on the operative state theme and the focus state
theme whereby control elements in the user interface have selectable focus indicators.